

Further notes on *Berberia* de Lesse species in North Africa and confirmation that *B. abdelkader* Pierret, 1837 and *B. lambessanus* Staudinger, 1901 are significantly distinct (Lepidoptera, Satyridae)

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**Summary**

Subsequent to the author's previous work on the genus *Berberia* de Lesse in NW Africa (Tennent, 1994), in June 1994, a mixed population of *B. abdelkader* Pierret and *B. lambessanus* Staudinger was discovered flying in the Moroccan High Atlas mountains. A number of male butterflies were secured, all of which were clearly identifiable as either *abdelkader* or *lambessanus*. The probable hostplant was identified as *Stipa parviflora*.

**Résumé**

Après la publication de son article sur le genre *Berberia* de Lesse en Afrique du Nord occidentale (Tennent, 1994), l'auteur a découvert en juin 1994 une population mixte de *B. abdelkader* Pierret et *B. lambessanus* Staudinger qui volaient ensemble dans le Haut-Atlas marocain. Il a capturé une série de mâles dont tous étaient nettement identifiables comme *abdelkader* ou *lambessanus*. La plante nourricière des chenilles a été déterminée : *Stipa parviflora*.

**Zusammenfassung**

Nach der Publikation einer früheren Arbeit über *Berberia* de Lesse in Nordwestafrika (Tennent, 1994) wurde im Juni 1994 im marokkanischen Hohen Atlas eine gemischte Population von *B. abdelkader* Pierret und *B. lambessanus* Staudinger entdeckt. Alle gefangenen Männchen ließen sich eindeutig als *abdelkader* oder *lambessanus* bestimmen. Futterpflanze ist vermutlich *Stipa parviflora*.

This short paper should be considered in conjunction with the author's previous work on *Berberia* de Lesse (TENNENT, 1994). Since preparing that paper in 1992, further lengthy visits have been made to the Maghreb, particularly Morocco, and on 8/9 June 1994, at 2150-

2250 metres on the shores of Lac Tislit (Imilchil) in the Moroccan High Atlas mountains, a mixed population of *Berberia abdelkader abdelkader* Pierret and *B. lambessanus* Staudinger was discovered.

In raising *B. lambessanus* to specific status, the author ventured the opinion (TENNENT, 1994 : 314) that *B. abdelkader* and *B. lambessanus* were unlikely to be found flying together because of (presumed) differing biological requirements. The Tislit biotope consists primarily of extensive stands of *Stipa parviflora* grass (det. Mr. Roy Vickery, Dept. of Botany, BM(NH)), which presumably serves as the hostplant for both species. Neither species was particularly common. Most individuals were seen on a steep rocky slope where pursuit was difficult and in two days a total of 24 males and 1 female were secured ; collection was arbitrary, many more were seen than taken and it proved impossible to accurately determine identity in flight. The males comprised 20 (83%) typical *abdelkader* and 4 (17%) typical *lambessanus* ; the single female was tentatively placed as *B. abdelkader*.

There are two possible explanations for the discovery of *abdelkader* and *lambessanus* flying together. Firstly, that *abdelkader* is a dimorphic (polymorphic if *nelvai* Seitz and *taghzefti* Wyatt are included) species or secondly, since by definition no two 'subspecies' of the same form may fly together, that two separate species are involved. The first explanation may reasonably be discarded, since all other known populations are almost exclusively of one "form" or the other and their respective hostplants are different (TENNENT, 1994 : 303, 314). Having said that, it is true that *lambessanus*-like forms occur rarely in *abdelkader* populations, and very infrequent specimens of *lambessanus* transitional to *abdelkader* were noted by the author in 1993 in the western Rif mountains and on Djebel Aourach, NE of the Dades gorge ; a circumstance not unexpected in such closely related taxa.

Of the Lac Tislit material examined, most were fresh and all males were clearly of one form or the other, with the upperside ground colour of *lambessanus* very dark brown, almost black and that of *abdelkader* dark chocolate-brown with the forewing apical ocellus ringed completely or partly by pale scales. Females of both species are generally difficult to separate. On balance, *abdelkader* from Tislit had a dark overall appearance compared with other populations, although many individuals were indistinguishable from those taken by the author in several localities in Algeria.

Apart from the obvious interest in finding *abdelkader* and *lambessanus* flying together, the occurrence of typical *abdelkader* in southern Morocco, some 380 km SW of the nearest previously known population,

is equally interesting and raises further questions as to the status of *B. abdelkader nelvai* and *B. abdelkader taghzefti*. One might have expected *abdelkader* flying in the northern High Atlas to be *B. a. taghzefti*, the nearest known population of which flies on the Tizi-n-Tairhemt in the extreme NE of that range (wrongly recorded by the author as being in the Middle Atlas mountains (TENNENT, 1994 : 308, 309)), a little more than 100 km NE of Lac Tislit. In preparing the previous paper, the author believed that a case may be made for considering *nelvai* a good species, based on its distinctive appearance, unusually late flight period, apparently clear geographical parameters and the fact that typical *abdelkader* flies both to the west and (from the small number of specimens in the BM(NH) collection in London from the Gharyan hills in W Libya) to the east. Although the evidence was deemed inconclusive, finding typical *abdelkader* in S Morocco lends support to this view since *nelvai* and *taghzefti* are in effect surrounded both by typical *abdelkader* and *lambessanus*.

Clearly, still more work needs to be done to finally resolve this interesting problem ; sadly the declaration by the FIS in September 1993 that foreigners in Algeria were considered a legitimate target, and the subsequent killing of many Europeans there, makes travel in that country in the foreseeable future impossible.

#### Reference

- TENNENT, W. J., 1994. The *Berberia abdelkader* (Pierret, 1837) enigma ; a review of named forms ; comments ; a solution offered (Lepidoptera : Satyridae). *Nota lepid.* 16 (3/4) : 295-320.